PHILADELPHIA, OCTOBER 26, 1878.

ORIGINAL LECTURES.

LECTURES ON A CASE OF FACIAL MONOPLEGIA, ILLUSTRATING THE LOCALIZATION OF CEREBRAL FUNCTIONS AND LESIONS.

Delivered at the Philadelphia Hospital, October 5, 1878,

BY DR. JOHN GUITÉRAS,

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LECTURE I.

GENTLEMEN,—When we began to study together the series of cases of nervous affections that I have had the pleasure of bringing before you, I promised to devote some time to the subject of localization of cerebral lesions. I hoped to make you acquainted with some of the recent investigations that have opened this new field of physiology and pathology. I desired that you should become familiar with the anatomy of the parts, that you might intelligently study this most interesting subject, comprehend the meaning of many clinical facts, profitably connect them with the lesions found at the post-mortem table, and thus contribute to the solution of this important problem.

Your method—the classical method—of studying the anatomy of the brain is very deficient. But a few days ago Dr. S. Weir Mitchell, in his Introductory Address at the University of Pennsylvania, stated that all cases reported before the last decade, previously to the agitation of these questions, should be excluded from consideration. Now, I very much fear that, if your attention is not more frequently drawn to the work that is being done in this department of medical science, your labors of the next decade will be useless, your cases of no value.

The case I have to show you to-day illustrates the effects of a lesion situated in what is called the motor area of the cortex of the brain. We start, then, with the knowledge of this fact, that there is a circumscribed portion of the cerebral convolutions where the volitional impulses originate which result in muscular movements. I shall prove to you that the disturbances of motion present in our case are due to a lesion of this motor area.

I give you the history of the case, excluding many interesting features symptomatic of the cardiac affection:

John J., æt. 58, tailor by trade, intemperate. He was admitted to the Philadelphia Hospital, September 6, 1878. The notes were taken shortly after. The patient never had rheumatism or syphilis. About last Christmas he "caught a cold," and began to suffer with symptoms of cardiac insufficiency. July 6 he was admitted into the institution as a pauper. He complained of weakness, but was not considered sick enough to be sent to the hospital. There was no facial palsy. A few days afterwards he noticed difficulty in moving the food in the mouth, and he was told that his face was crooked. The cardiac symptoms became gradually worse, and he was transferred to the hospital.

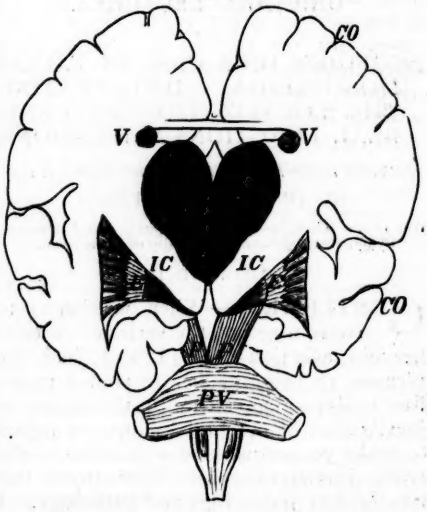
There is left facial palsy, especially marked in the lower portion of the face. Though he can close the left eye perfectly, the act is not performed as firmly and rapidly as with the right eye. No difference can be noticed between the two sides in frowning. About the mouth and nose the paralysis is almost complete; in the performance of associated movements there seems to be some activity of the paralyzed muscles. The left nostril is smaller than the right. The faradic excitability, though somewhat below the normal, does not differ in the two sides. The same may be said of common sensibility and the perception of pain and heat. The temperature is the same on both sides of the face. There is some excoriation about the right angles of both eyes. This is due to the position of the patient. He always lies upon the right side, so that the œdema of the face and body is much confined to this side. There is no *arcus senilis*, no inequality of the pupils. Power of vision is good. The sense of taste is very obtuse, but no difference can be detected between the two sides. The food accumulates in the recesses of the mouth. Some years ago he had impacted cerumen removed from both ears, and he thinks his hearing has not been perfect since. This is not apparent when speaking to him, but he cannot detect the ticking of a watch with either ear. He never had noises in the ear, and is not subject to vertigo or headache. The arch of the anterior pillars of the soft palate is well shaped, but the left posterior pillar drops considerably. The point of the uvula is drawn towards the paralyzed side. The muscles of the tongue are normal. There is no motor paralysis of the lower extremities. The dynamometer marks 24 for the left and 27 for the right hand. He has perfect use of these extremities. The æsthesiometer shows a slight impairment of the sensibility throughout. There is a general sluggishness of nervous functions, induced by the general mal-nutrition of advanced cardiac cachexia.

The patient has dilatation of the arch of the aorta, aortic regurgitation, and great enlargement of the heart, mainly from dilatation. The respiration is tidal to a marked degree. It ceases for about fifteen seconds, and then gradually returns, to subside afterwards in the same manner. I counted one, two, four, six, and seven respirations in five consecutive sixths of a minute. During the respiratory excitement the fluids of the mouth are occasionally drawn into the larynx, producing choking and coughing. There may be some defect in deglutition, but the disorder of respiration seems enough to account for the symptoms. His speech is very rapid, because he endeavors to say as much as possible during each expiration. He cannot control the respiratory movements. At times the inspiratory act seems to surprise the larynx in the act of phonation, and a paroxysm of cough is the result.

He continued much in the same condition until the 30th of September, when he was found to be in a semi-comatose condition, with some wandering delirium. The following note was made at the time. There is distinct, though by no means complete, motor paralysis of left arm and leg. The facial paralysis is not changed. The perception to pain is as good as can be expected of his condition. The surface is cold and cyanotic. There are evidences of embolism of the right brachial artery. No difference between the pupils. Respiration continues tidal. The pulse is 25 during one-third of a minute of absolute arrest of respiration, and the same in the next twenty seconds of rapid breathing. During the time of suspended respiration the lungs are in a state of full expiration, and no power of his will seems able to expand them; so that when I ask him to say his name he repeats it with mouth and lips, but there is scarcely enough air expelled through the larynx to raise a whisper; then, as the respiration returns, he continues to repeat the name until the voice reaches its full development. To-day, the 5th of October, he is comatose, and is dying of asystole.

I shall now give you an outline of the anatomy of the brain, as far as it bears upon the present case. These diagrams will enable me to make the subject clear. In Fig. 1 you have a transverse section of the brain. *V* represents the posterior extremity of the ventricular portion of the striated body; *E*, the extraventricular portion, or lenticular nucleus. Between these two anteriorly (in the parts removed by the section), and between the lenticular nucleus and the optic thalamus, *O T*, posteriorly (as seen on the surface of section), is found the internal capsule, *I C*. This is made up of a large portion of the nerve-fibres that form the peduncles, *P P*, or crura of the brain. These fibres come from the

Fig. 1.



medulla, *M O*, pass through the pons, *P V*, form the more superficial portion of the peduncles, and, when they arrive between the central ganglia above mentioned, expand antero-posteriorly, like a fan. The section here seen is one perpendicular to the antero-posterior axis of this expansion. The fibres continue to diverge until they reach the broad expanse of the cortex, *C O*. I may say to you at once that we shall have to deal to-day only with the two anterior thirds of this internal capsule; they contain the motor fibres, and our case is one of motor paralysis. In fact, we shall only dwell upon those fibres of the anterior capsule that pass directly from the peduncles to the cortex; yet it is well that I should tell you that there are many fibres that stop on their way,—fibres from the superficial portion of the peduncles which are lost in the striated body,—fibres from the deeper portion (the tegmentum) that pass into the optic thalamus and corpora quadrigemina. Also remember that from all these ganglia fibres are given off, which, together with the direct ones, contribute to the formation of the great expansion of white matter underlying the convolutions of the brain. This is called the great oval centre, and receives the name of corona radiata where the nerve-fibres radiate from the basal structures.

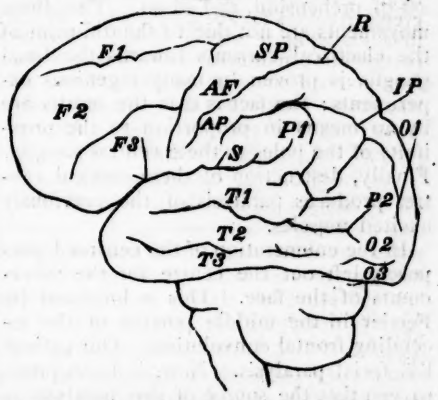
I dismiss the posterior third of the in-

ternal capsule by saying that it consists of sensory or centripetal fibres. We unfortunately have no positive physiological proof of their place of destination; we do not know, in other words, where in the cortex are the centres of sensation to which these fibres carry the peripheral impressions. Anatomy would point to the posterior lobes of the brain; so also to a certain extent do experimental physiology, and some experiments performed for us by disease. I shall, therefore, dismiss for the present the occipital, the temporo-sphenoidal, and the posterior part of the parietal lobes.

Let us return to the motor fibres. I left off a moment ago without telling you of their final destination. Here the task is easier, thanks to the labors of Hitzig, Hughlings-Jackson, Charcot, Ferrier, Carville, Duret, and others. The area of gray matter of the cortex, from which motor (centrifugal) impulses are sent down the anterior thirds of the internal capsule,—impulses that may be modified or co-ordinated in the ganglia before they reach the crura and anterior columns of the cord,—this area, I say, which controls the muscular movements, is well defined. When destroyed experimentally in the lower animals and by disease in man (and here let me remind you that we are touching the point of our case), there is paralysis of motion in some portion or the whole of the opposite side of the body: when this area is irritated by either of the two processes mentioned, you have some form of muscular movement in the same parts of the body. I have said the opposite side of the body. You are all aware that the great majority of the motor nerve-fibres decussate at the anterior pyramids of the medulla.

I call your attention to this diagram (Fig. 2), which gives an outline of the convolutions of the convexity of the brain. The fissure of Sylvius, *S*, separates the frontal and parietal lobes above from the spheno-temporal lobe below. Near its commencement arises the fissure of Rolando, *R*. It extends obliquely upwards and backwards, and terminates about the middle of the great longitudinal fissure. It separates the frontal from the parietal lobe, and is the landmark of the motor area. In fact, the motor area forms the borders of this sulcus: thus, in front we have the ascending frontal convolution, *A F*; to this may be added the neighboring bases or posterior extremities of the three frontal convolutions, termed superior,

Fig. 2.



middle, and inferior, *F* 1, *F* 2, *F* 3. Behind the fissure of Rolando we have the ascending parietal convolution, *A P*. These two ascending convolutions extend beyond the fissure of Rolando, above; that is, they turn into the great longitudinal fissure, appearing in the medial surface of the hemisphere, under the name of paracentral lobule. The structure of these convolutions indicates their motor function. They are abundantly supplied with the large, pyramidal, multipolar cells which correspond to the large cells in the anterior cornua of the cord. The latter, as you know, are motor.

But, further than this, experiments on the lower animals, especially those made by Ferrier on monkeys, prove that these convolutions are closely related to the function of muscular motion. He has even divided this area into smaller ones having under their special control the muscles of special regions. The upper portions of the ascending frontal and ascending parietal convolutions he found to be the motor centre for the upper and lower extremities, the base of the first frontal convolution for certain movements of the head, the base of the third frontal for the movements of the tongue and jaw.

Before referring to that portion of the motor area which bears more closely upon our case, let me tell you something further about these experiments. They consist in the application of electrical currents to circumscribed portions of the area. Certain movements follow in the periphery. These movements are said to be purposive,

—that is, they appear to resemble volitional movements: the anterior extremity, for instance, will move as it does in the act of prehension, and so on. That these movements are not due to the diffusion of the electrical currents towards the basal ganglia is proven by many ingenious experiments: the fact is that the results are by no means in proportion to the proximity of the poles to these central ganglia. Finally, destruction of these cortical centres produces paralysis of the previously excited muscles.

In the enumeration of the centres I purposely left out the centre for the movements of the face. This is localized by Ferrier in the middle portion of the ascending frontal convolution. Our patient has facial paralysis. Now, if I can prove to you that the source of this paralysis is not to be found anywhere in the course of the fibres of the facial nerve, you must admit that the lesion must be found in the centre; and if in the post-mortem examination, which I fear cannot be averted in this case, a lesion is found in the middle portion of the right ascending frontal convolution, you will have a most trustworthy confirmation of the experiments of the physiological laboratory.

In my next lecture I shall study with you the symptoms of our own case. But, before parting, let me tell you that such confirmations as I have just mentioned are not wanting in the history of modern pathology. They are becoming every day more and more numerous, because the cases are more intelligently studied. It may be said, indeed, that the theory of localizations is based equally upon physiological experimentation and the data furnished by the clinician and pathologist.

ORIGINAL COMMUNICATIONS.

ON THE THERAPEUTIC USE OF CALABAR AND ESERINE IN EYE-DISEASES.

BY M. LANDESBERG, M.D.

CALABAR BEAN, a legumen, is indigenous to the kingdom of Dahomey, on the coast of Guinea, and is known to the natives under the name of "eséré." The fruits were brought to England first by a missionary,—Waddal, of Old Calabar,—and presented to the renowned Scotch toxicologist Christison, who made experiments with them on animals, and published the results of his physiological investigations in February, 1855.

The credit of having first discovered the myotic qualities of the calabar bean belongs to Dr. Thomas Fraser, of Edinburgh, who gave full details of his investigations on this subject in his inaugural dissertation published July, 1862.

The statements of Dr. Fraser were confirmed and enlarged soon after by Argyll Robertson, Soellberg Wells, Bowman, Donders, Von Graefe, and others. Bell & Co., druggists, in London, first manufactured the current preparations of the calabar bean,—the alcoholic extract and the calabar paper,—and thus facilitated the rapid introduction of the new remedial agent into oculistic practice.

But the following experiences did not answer the high expectations excited at first by this most efficacious of all myotic remedies known until then. As an antagonist to atropia, calabar proved to be somewhat unreliable and much weaker in its action; besides, its use, both in the form of the extract and the paper, was followed by the very disagreeable effect of irritating the eye to such a degree that it was hardly advisable to continue its application for any length of time. In cases of mydriasis and paresis of the muscle of accommodation, calabar proved to be almost inefficacious. Its results in detaching posterior synechiæ were very questionable. Its application in cases of glaucoma prior to the operation, in order to contract the pupil and thus facilitate the technics of the iridectomy, as Von Graefe recommended it, did not meet with the general approbation of the profession. The benefit of the application was small compared with the injury brought about by the irritating properties of the drug.

The first impulse of enthusiasm being over, the application of calabar in oculistic practice had become obsolete until lately, when the researches of Adolph Weber and Wecker formed the commencement of a new era of therapeutic use of calabar. At the same time it occurred that the active principle of calabar, called physostigmin by some, and eserine by others, was isolated, and a preparation was thus obtained which, absolutely efficient in

its actions, may be applied without producing any irritation of the eye.

A. Weber (see *Von Graefe's Archives for Ophthalmology*, 22, iv. page 215, and 23, ii. page 161), after various physiological investigations and clinical observations, came to the following conclusions:

1. Atropia diminishes the intraocular pressure in the normal eye, if at all, only in the space of vitreous humor, while it always increases it beyond its normal condition in the anterior chamber.

2. Calabar increases the intraocular pressure of the normal eye in the space of vitreous humor, and diminishes it very considerably in the anterior chamber.

From the knowledge of the physiological actions of calabar upon the eye, the indications for the use of this drug in certain diseases of the eye become obvious. In all deep ulcerations of the cornea, in which the latter is not able to bear the intraocular pressure and is very liable to perforation, calabar must be called into action to diminish the intraocular pressure of the anterior chamber and thus obviate the perforation of the cornea. Besides, Weber observed that during the use of calabar (resp. eserine) the small arteries of the eye are made to pulsate. It follows that by that action the current of the fluids of the tissues is accelerated, decay prevented, and restitution favored.

Weber made use of calabar in the following morbid processes of the eye:

1. In all deep ulcerations of the cornea.
2. In keratoconus.
3. In exulcerating staphylomata of the cornea.
4. In keratocele.
5. In maculæ corneæ.
6. In peripheric prolapse of iris and in posterior synechiæ.
7. In pareses and paralyses of the muscle of accommodation and of the sphincter of the iris.
8. In cases of glaucoma, under especially fixed indications.

In the beginning of his therapeutic experimehts Weber used extract of calabar, afterwards, from 1876, sulphate of eserine only, in a solution of one per cent.

The sulphate of eserine, which he at first ordered from Vée in Paris, represented a substance similar to fragments of colophony, which dissolved in water was first colorless, became very soon (after an hour) of a reddish color, and gradually assumed deeper tints, until it had the color of Malaga wine.

The sulphate of eserine, which Merck in Darmstadt soon afterwards manufactured, and which Weber is now using exclusively, represents an amber-yellow granular powder, the watery solution of which is first colorless, but undergoes afterwards the same changes of color as Vée's preparation,—with this difference, that it does not become so deeply red as the other.

Wecker first made use of eserine in his practice. I first saw the preparation and its application during my visit to his clinic in the fall of 1875. He used it at this time exclusively as a myotic, in order to contract the pupil after the operation of cataract, performed according to his method, with the intention of avoiding by this procedure prolapse of the iris. While using eserine for that purpose, Wecker observed that it diminished the conjunctival secretion, and that it had a very favorable effect in checking the suppuration of the cornea which sometimes occurs after the operation of cataract. Induced by these experiences, besides presuming eserine to possess antiseptic qualities (which was refuted by the experiments of Schmidt-Rimpler), and holding with Harnack and Witkowski that this alkaloid brings about tetanization of the smooth muscular fibres of the blood-vessels, restricting thus the diapedesis, he began to administer it in cases of deep diffuse ulcerations of the cornea. He is now using eserine according to the same indications as Weber, agreeing with the latter in his high appreciation of this drug. (See *Klinische Monatsblätter für Augenheilkunde*, February, 1877, and May, 1878.)

Wecker uses the sulphate of eserine, manufactured by Vée. It is obtained in pointed, white-yellowish crystals, which are very hygroscopic, changing easily to a yellowish-brown colophony-like mass, if not kept carefully closed. The solution of one per cent., which Wecker uses, represents a yellowish, perfectly clear fluid, which in cold weather becomes slightly reddish only on the second or the third day. In summer the discoloration sets in after the lapse of twenty-four hours, and the solution becomes deep solferino-red. In this condition the drug loses some of its efficiency.

Laqueur, independently of Weber, was brought by theoretical arguments to em-

ploy eserine in cases of glaucoma. The fact that the administration of atropia gives rise in some cases to glaucoma suggested to Laqueur the idea of using the antidote in treating this affection. In the course of his experiments he discovered that eserine diminished the intraocular pressure. His preliminary communication in *Centralblatt für Med. Wissenschaften*, 1876, No. 24, on this subject, was followed lately by a detailed article in *Von Graefe's Archives for Ophthalmology* (23, iii.), entitled, "On the Use of Eserine in Cases of Glaucoma."

Reus published in *V. Graefe's Archives* (23, iii.) an article "On the Physiological Actions of Eserine on the Normal Human Eye."

To Weber belongs undoubtedly the high credit of having first called the attention of the profession to the therapeutic value of calabar in certain diseases of the eye.

The article of Weber on calabar and its therapeutic use came under my notice early in February, 1877.

The high praise given to calabar by this most scrupulous and exact observer, and the success which he claimed to have obtained with this drug in the most severe ulcerations of the cornea, induced me also to give this remedy a trial according to the indications stated by Weber, in order to learn by my own experience its value and its importance.

In the beginning of my therapeutic experiments I was compelled to make use of the extract of calabar. The eserine, a Vée's preparation, procured by Mr. G. Krause at my suggestion, proved to be a useless drug, with the sole effect of irritating the eye. Afterwards I used the sulphate of eserine made by Merck, in Darmstadt, which is a very good preparation, of constant qualities.

This sulphate of eserine represents a substance of colophony-like consistency; it gives at first a slightly reddish solution, which in the course of time assumes a wine-red color, but without losing its myotic power.

I am using in my practice a solution of one per cent., of which, in the beginning of the treatment, one drop is instilled every hour. The use is afterwards diminished according to indication.

I have used eserine in the following morbid processes of the eye:

1. In all deep, diffuse, or circumscribed ulcerations of the cornea.
2. In keratocele.
3. In maculæ corneæ.
4. In perforating wounds of the cornea.
5. In certain forms of torpid infiltration of the cornea.
6. In paralysis of the muscle of accommodation consequent upon diphtheria.
7. In traumatic mydriasis.
8. In glaucomatous processes.

The ulcerating processes of the cornea gave the largest percentage of my experiments with extract of calabar (resp. eserine).

From the copious material of the observed cases I will publish only those which are most fitted to illustrate the new method of treatment, and to contribute to the solution of the question if, and how far, the use of calabar resp. eserine is to be regarded as a progress in the treatment of eye diseases.

Case I.—C. T., laborer's child, 2 years old, was brought to me May 3, 1877. I stated:

Right eye.—Inner half of the cornea totally dim. A deep ulcer occupies the upper inner quadrant of the cornea, from which purulent infiltration radiates to the outer half of the cornea. Iritis and hypopyon, ciliary neuralgia, and spasms of the lids very severe.

Left eye.—Normal.

The treatment consisted in the beginning, according to the old method, in the application of atropia and warm poultices. There was no improvement. The ulceration spread to the deeper layers and advanced to the inferior inner quadrant of the cornea. Perforation was imminent. I made paracentesis and applied a compressive bandage.

The bandage was not of great avail, the child being under out-door treatment, and the mother careless. The whole cornea became infiltrated. Keratocele appeared on the upper inner quadrant of the cornea.

On the seventh day of treatment I resorted to extract of calabar (gr. i to three drachms of glycerin), of which one drop was instilled every hour; besides warm poultices, but no compressive bandage. The morbid state remained stationary within the three following days. On the fourth day the opacity of the outer half of the cornea cleared up, and keratocele became less bulging. The ulcerated bottom began to clear and fill up. On the sixth day several vessels appeared on the upper inner periphery of the cornea, starting from the limbus conjunctivæ to the ulcerated spot. These gradually increased, forming a broad band occupying the whole breadth of the upper inner quadrant of the cornea. Keratocele and hypopyon disappeared.

While the healing process was going on, infiltration appeared on the inferior inner quadrant of the cornea. The ulcer was of oval shape, with ragged edges and diphthe-

ritic bottom. Hypopyon set in, and perforation of the cornea was imminent.

The process of purulent infiltration of circumscribed parts of the cornea was repeated in the inferior outer and superior outer quadrants of the cornea.

Under application of calabar and warm poultices, the final result was perfect transparency of the central part of the cornea, with opacity of its peripheric parts.

Case II.—D. G., washerwoman's daughter, æt. 8, was brought to me August 8, 1877.

L. E.—In the upper third of the cornea there was a circumscribed round ulcer, penetrating to the membrana Descemetii, and forming keratocele.

Treatment: extract of calabar, and warm poultices.

On the third day pupil was contracted to the utmost, and prolapse of iris removed from the bulging bottom.

In spite of the carelessness of the mother in following the medical advice, the progress of reparation was very favorable. The ulcer healed, leaving a circumscribed leucoma of the cornea and normal pupil.

Case III.—H. A., baker, æt. 45, came under my treatment September 15, 1877, with a central ulcer of the right cornea and iritis. Cause probably traumatic.

On atropia, pupil dilated only very slowly. There were posterior synechiæ. A five-days treatment with atropia and warm applications brought no essential improvement. On the sixth day I gave extract of calabar.

From that time reparation set in, and the healing process advanced slowly but steadily. There remained only a slight macula and two very thin posterior synechiæ.

Case IV.—C. G., laborer's child, æt. 2 weeks. I saw it January 28, 1878, with the following condition: blennorrhœa neonatorum of both eyes; suppuration highly developed.

Right eye.—In the inferior third of the cornea, central perforation and prolapse of iris. The peripheric parts of the cornea are dim. The purulent infiltration radiates to the upper half of the cornea.

Left eye.—Deep ulcer in the inferior half of the cornea. Keratocele. Infiltration of the lateral parts and the upper half of the cornea.

Therapeutics.—Division of the outer commissure of both lids. Strong solution of nitrate of silver for touching the lids. Of eserine one drop every hour.

February 4.—The ulceration of both corneæ in process of reparation. Anterior chamber restored. The upper half of the cornea transparent. Suppuration diminished. Pupils contracted to the utmost.

February 20.—Anterior synechiæ of both eyes.

R. E.—Leucoma adhærens of the whole inferior half of the cornea. The central part of the cornea is dim, and only its upper third transparent.

L. E.—Circumscribed leucoma of the cornea. Its upper half and lateral parts are transparent.

Case V.—F. B., laborer's child, æt. 18 months. Scrofulous diathesis. Poorly fed. Face flaccid, livid. Very little care and attendance from the mother's side.

The child came under my out-door treatment March, 1878. It was suffering from a central deep ulcer of the right cornea with hypopyon, filling nearly the half of the anterior chamber. I applied warm poultices and eserine. While under this treatment, the morbid process began to subside and reparation set in: there appeared on the left cornea, near its centre, a small superficial infiltration of the size of a pin's head, with very slight symptoms of irritation. Under atropia, infiltration very rapidly spread over the whole surface of the cornea, penetrating to its deepest layers, and making perforation imminent. There was hypopyon. This change occurred within two days, during which I did not see the child.

I resorted to eserine and warm applications. The progress of the morbid process was soon stopped and reparation induced.

In the course of the summer, when corneal ulcerations often recurred, with tendency to malacia, the morbid process was quickly checked by the use of eserine.

Both eyes were restored to their normal state, without synechiæ, but with small maculæ corneæ.

Case VI.—H. B., laborer, æt. 48, came under my treatment April 5, 1878, with a perforated wound on the upper third of the right cornea, caused by a blow with a hammer. Anterior chamber obliterated; hyphæma; iris, swollen and discolored, lay close to the back surface of the cornea, forming a small prolapse in the corneal wound; ball soft; quantitative perception of light. The accident had occurred eight hours previously.

The out-door treatment consisted in application of eserine and of a simple bandage over the eye. After twenty-four hours the anterior chamber was partly restored and the blood partly reabsorbed. The pupil was contracted to the utmost, and the prolapse of iris retracted. The edges of the wound were sticking together. The treatment resulted in a perfect cure, with superficial linear cicatrix of the cornea.

Case VII.—C. F., workman, æt. 39, came to me July 8, 1878, stating that a piece of iron had struck his left eye in the afternoon of the same day, and that a fellow-workman had tried to remove the foreign body, but with only partial success.

On examining the eye I found in the centre of the cornea a small infiltration with a dark speck in its centre. Around the infiltration epithelium was very badly injured and scratched, as a result of the attempts at removal of the foreign body. One end of a piece of iron was impacted in the deeper

lamellæ of the cornea, whilst the body itself reached into the anterior chamber. Slight irritation and hyperæmia of iris.

I instilled at once some drops of eserine into the eye, and when pupil was contracted to the utmost I introduced a broad iridectomy-knife into the anterior chamber, pressed its broad surface against the posterior wall of the cornea, forced the body forward and lifted it out by means of a chisel. Perforation of the cornea could not be avoided. The further treatment, consisting in eserine and a simple bandage over the eye, resulted in complete recovery. Patient returned the day following his injury to his work.

Case VIII.—F. B. Smith, æt. 18, came under my notice August 8, 1878, five hours after having been struck on his right eye with a chisel. There was a penetrating wound of the cornea, extending diagonally from above outward to the pupillary region, with prolapse of iris and hemorrhage in the anterior chamber. Intraocular pressure diminished. Vision reduced to quantitative perception of light.

Therapeutics.— Eserine and monocular bandage. Corneal wound closed very rapidly, healing with linear opacity; prolapse of iris retracted; intraocular pressure became normal. A very fine filament of the pupillary zone of iris remained imbedded in the corneal wound, forming a fine anterior synechia. Vision was restored to its normal condition.

September 1, I tore the anterior synechia in the following manner: I made a small sclero-corneal incision upwards, as for iridectomy, introduced into the anterior chamber the iris-forceps of Liebreich (modified by Weiss), seized the filament, and by traction tore it from the cornea. After the operation, monocular bandage and eserine. Pupil was restored to its normal shape.

If asked whether such favorable results could not have been obtained in the same morbid processes of the cornea if treated according to the old method, we are bound to answer the question unconditionally in the affirmative. The medication would only have been more complicated, and the favorable result more dependent upon the good will of the patients. According to the old method, in all these above-named cases compressive bandaging would have been the first indication; besides rest in bed, eventually paracentesis, keratomy, etc. An out-door treatment would have been impossible. To keep adults under compressive bandage for long at a time is difficult enough; with children this method is only rarely practicable. The difficulties in bringing about a favorable result under the old method of treatment were in such cases greater than under the new one, and the course of treatment was more complicated. Therefore the calabar-treatment is to be regarded as a real progress in the oculistic practice, because it simplifies the therapeutics, makes them more independent of the obedience and attention of the patient, and enhances in that way the chances of a favorable issue.

The greater efficacy of the eserine-treatment was tested by me in another form of corneal disease. There are ulcers which mostly appear single in the centre of the cornea, have no inclination to spread to the deeper layers, and are very circumscribed, surrounded by a small halo of infiltration. The irritation is at first more or less great, but subsides in the course of treatment, so that the eye can be opened and can bear the light. Under the usual treatment the progress of the improvement is very slow; the morbid process remains stationary for weeks. Resorption does not progress; reparation is hardly perceptible. The final result, however, is favorable, and there is no danger to the eye if it remains under the proper attention of the physician. But the patience both of the physician and the patient is subjected to a very severe test. Stimulants, such as ointment of oleate of mercury, in order to accelerate resorption, cannot be applied, because, however torpid the infiltration remains for weeks under the use of atropia and warm applications, the moment a stimulant is applied the eye responds with the utmost reactive irritation.

A case of this kind—*central torpid infiltration of the right cornea* of a child two years old—came under my treatment April, 1878. I treated the eye for weeks with atropia and warm applications. At first irritation subsided and there was a very pronounced improvement. But soon reparation stopped, and the morbid process remained stationary. Every time I was induced by my impatience to try a stimulant, it was followed by the most severe symptoms of irritation, leading to the aggravation of the ulceration. At last I tried eserine instead of atropia. Soon reparation progressed, and in a very short time the ulcer healed, leaving but a small cicatrix.

From this time I had opportunity to try eserine in several similar cases of torpid infiltration of the cornea, with the same favorable result.

Effective as the treatment with eserine

proved to be in the above-named affections of the cornea, totally in accordance with Weber's statements, just so ineffective was it in cases of maculæ corneæ, in which Weber reports having obtained such fine results. No case of ulceration of the cornea treated with eserine healed with a more pellucid cicatrix than I observed under the former treatment with atropia, and in no case of macula corneæ did I ever observe eserine to have any effect in clearing up the opacity and restoring the transparency of the cornea.

Eserine proved to be totally ineffective in one case of mydriasis traumatica, while in another case it was partially successful.

Case I.—A. K., driver, æt. 36, came under my treatment (March, 1878) with mydriasis traumatica of the left eye. He was assaulted four weeks previously, receiving a blow on his left eye. On examination, I found:

The eye normal, with V = $\frac{20}{20}$. Jaeger 2 from 12″–8″. Pupil dilated beyond the medium, of oval shape. Reaction on light, consensually very slight, on reflex action and on binocular fixation a little better, but the inner half of the fibres of the iris did not participate in the contraction. I prescribed a solution of eserine, one drop of which was to be instilled every two hours. The following day the pupil was contracted to the utmost. The application of eserine being discontinued for twenty-four hours, pupil became as large as on the day of first consultation. The daily instillation of one drop of eserine brought about a contraction of the pupil, the diameter of which was the same as of the right eye. But, after a treatment of five weeks, a real success was not obtained. As soon as the drug was discontinued, the former mydriasis returned, and the paralysis of the fibres of iris remained the same.

Case II.—B. M., tailor's son, æt. 8, consulted me May, 1878, twenty-four hours after the left eye had been struck with a piece of limestone. There were two small infiltrations of the cornea, the one in its upper third, the other in its centre; a small hyphæma in the anterior chamber, and a high degree of mydriasis. Pupil was irregularly dilated, with its largest curvature upwards. Reaction of pupil was consensually very slight, a little better on reflex action; but the fibres of the upper inner quadrant of the iris did not partake in the contraction. I prescribed warm applications and eserine. The infiltrations healed very soon. Pupil became contracted to the utmost. Patient read Jaeger 2 at 5″.

The result of a six-weeks treatment with eserine was as follows:

The pupil (when not under the action of eserine) was round, medium dilated, reacted consensually so slowly that it could not be ascertained if the fibres in the upper inner quadrant of the iris took part in the contraction; on reflex action and binocular fixation the reaction was quite sufficient, and the fibres of the upper inner quadrant of the iris participated, though slowly, in the contraction. But even in this condition the pupil was twice as large as the right one. The daily application of one drop of eserine brought the pupil to the same diameter as the right one. But as soon as eserine was discontinued for twenty-four hours the above-mentioned condition of mydriasis reappeared.

Whereas eserine proved to be a very efficacious remedy in the following case of *paralysis of the muscle of accommodation* of both eyes:

K. B. Signer's son, æt. 9, was brought to me October, 1877, for inability to see distinctly near by for several days past. The boy was pale and somewhat anæmic. The eyes appeared to be normal. V = $\frac{20}{20}$, with +10 Jaeger 1 at 10″ distance. Background of the eyes and reaction of pupils normal. *No power of accommodation at all.* By the nasal sound of the voice I was induced to examine his throat. It was somewhat inflamed, and the glands were swollen. The uvula deviated a little to the right side. On my questioning the mother, she told me that the boy had suffered two weeks previously from throat-trouble. It could not be ascertained whether the affection was diphtheria.

I prescribed eserine, to be used three times a day. When I saw patient, about eight days afterwards, the power of accommodation was totally restored, and he could read Jaeger 1 from 3″–12″.

I abstained from any roborant therapeutics, in order to observe the pure effect of eserine. Though we are not unaware that such diphtheritic paralyses sometimes subside without any treatment, we are nevertheless permitted to ascribe in this case to the application of eserine its part of the good result.

Finally, I used eserine with good result in the following cases of glaucoma:

Case I.—C. R., baker, æt. 25, came under my treatment June, 1877, in the following condition:

Right eye.—Opaque staphyloma of the cornea in its upper third. Anterior synechiæ. Iridectomy downwards. Edges of the iris are grown in the wound. Pannus trachomatosus through the whole cornea.

Left eye.—Central leucoma of the cornea. The posterior surface is grown together with the iris in its upper half. Irregular, badly-made iridectomy downwards. Section in the cornea; the edges of the iris are grown in the

wound. Pannus trachomatosus in the upper half of the cornea.

Patient counted fingers only close by, and was not able to find his way.

In consequence of the treatment, the eyes improved so far that the patient was enabled to resume his business in December of the same year. He went into the country, where he found employment, and I lost sight of him.

On March 6, 1878, he returned. The staphyloma of the right eye was much developed, and presented itself as a small tumor through the upper lid. The intraocular pressure of the same eye was increased. There was excavation of the optic disc. Patient suffered from a sensation of great tension in the eye and from acute pain in the temples and the forehead.

He told me that two weeks ago he consulted a country physician for inflammation of his right eye, who gave him atropia. On applying it for some days, inflammation stopped, but the pain increased; the eye became very tender; a sensation of intense tension and pressure in the eye set in, and the small tumor began to develop.

The question whether we have to deal here with secondary glaucoma, as a consequence of the morbid alterations of the eye, which might have set in also without the use of atropia, or if atropia has only accelerated the glaucomatous attack, or was the first cause of its development, must remain an open one.

I prescribed eserine to be instilled every hour. On the second day the sensation of tension and pressure, the pain of the temples and the forehead, were gone; but there was no change in the intraocular pressure and in the excavation of the optic disc.

Eserine was applied on the second day every two hours; on the third and fourth day every three hours.

On the fourth day, intraocular pressure was normal, excavation of the optic disc diminished, staphyloma less prominent, and vision improved. The continuation of the use of eserine (one to two drops a day) for some time caused the excavation of the optic disc to disappear entirely. The staphyloma became still smaller, and appeared through the lid as a slight elevation only. For several months the condition has remained the same.

Case II.—P. W., laborer's wife, æt. 75, came to me July 5, 1878.

Right eye.—Chronic glaucoma, amaurosis, intraocular pressure increased, pupil dilated to the utmost, anterior chamber very shallow, deep excavation of the optic disc, severe neuralgia of the head, causing sleepless nights. The eye has been blind for two years, and is subjected to subacute exacerbations.

Left eye.—V = $\frac{20}{70}$, with +10 Jaeger 6. Intraocular pressure and field of vision not abnormal. Background of the eye of suspicious appearance. Patient had previously resisted proposed iridectomy, and still objected to any operation.

I prescribed eserine only for the sake of trial.

On the third day, neuralgia was much diminished. Patient stated that she was better than she had been for several months, being able to sleep during the night. Pupil was a little contracted. No change in the intraocular pressure and in the excavation. On the seventh day intraocular pressure had become diminished. No neuralgia for two days.

At the end of the third week, tension of the eye was much lessened, without, however, being normal. Pupil was medium dilated. No change in the excavation. No attack of neuralgia for more than two weeks.

Patient continued to use, irregularly, one or two drops of eserine every day. The condition of the eye, last noted, remained stationary.

When I lately saw the patient, in the seventh week of treatment, the condition of the eye was still satisfactory.

1605 Arch Street, Philadelphia.

OIL OF AMBER IN ANGINOSE AFFECTIONS.

BY A. R. FINCK, M.D.,

Philadelphia.

FOR all that is known or said of it, rectified oil of amber might as well have been retired long ago to that silent majority, the non-officinals; but I hope to suggest a use for it that may revive, at least, a measure of its ancient praises.

I should preface my clinical detail, however, by stating that the remedy has been put upon trial by me for a number of years in many cases, diverse in age, habits, circumstances,—in short, in their entire environments.

It must also be understood that in several of the cases here described the oil of amber was merely adjuvant to the general treatment of the patient's disease, and that it was expected to do only one thing,—to relieve the cardiac pain.

The question of organic or merely functional disease is not considered, as the amber is recommended only for the neuralgic element, no matter how associated or excited, except, however, that the medicine is a stimulant, and is not thought appropriate in sthenic cases and cases of "active aneurism" or ventricular dilatation with much hypertrophy.

Some years ago, when I lived in Wheeling, the brothers Drs. Cummins invited

me to see an old lady who had suffered for years from sharp stitches in her heart, which grew in violence and frequency with her age, and her bowels were habitually costive. Her physicians had failed to find an effective means against either trouble. I proposed she should take from four to six, and, if need be, from eight to twelve, drops of rectified oil of amber on a lump of sugar, melted in water, and repeat the dose every thirty to forty minutes at each paroxysm until better. So prompt was her relief each time that the agency of the amber could not have been mistaken; it also usually acted on her bowels.

Several years since, I was summoned to a patient, Miss H., aged 18, living in Pittsburg.

She had been declining for several years, but for eight months past had had violent palpitations; sharp stitches running through every part of her chest; dreadful cough, excited by the least movement; abundant expectoration, with occasional hemorrhages from the lungs. Her catamenia were irregular,—of late entirely absent. Her pulse was always quick. She had night-sweats, a tolerable appetite, but felt distressed by the presence of food in her stomach. In this case the ordinary rules of diagnosis went for little: everything was confused and masked. The physicians pronounced her consumptive, and the only spark of hope left was in the probable absence of hereditary taint; for her parents and five other children were in sound health.

I learned that her heart had been strained by excessive exercise when she was only seven years old, and at fourteen the nervous irritability attending her menstrual influx caused her heart to dilate largely and her health to give way. Her distress urgently demanded something for her relief, but the doctors said that opiates sickened her and destroyed her appetite, no matter how combined or disguised, and alcoholic stimulants heated her and increased the palpitation: so amber was tried, and the angina abated promptly. And then, as she was not tuberculous, the remedies addressed to her general disease, conjoined with the amber, cured her within a year.

The most notable case of all was that of J. B. K., of this city.

He had lived for some years in Alabama, where he suffered greatly from malarial fevers. He was healthy born; his age is now forty-five. Four years ago he began to cough, occasionally spat blood, and he was usually constipated. The past year his cough and expectoration became very bad, and he had several alarming pulmonary hemorrhages. His chief suffering came from nearly constant sharp stitches through his breast, which yielded to nothing that had been given him. This was a case of enlarged torpid liver, and extreme dilatation of the heart, without hypertrophy. His cough was attributed chiefly to crowding of the lungs, the neuralgia to pressure and innutrition.

June 9, 1877, comp. podophyllin granules were given to produce a daily evacuation, a tonic mixture containing iron, sulphate of cinchona, and chlorate of potassium, and the following prescription:

℞ Ol. succini rect., ʒiss;
Tinct. digitalis, ʒiii;
Fl. ext. tarax.,
Vin. ergotæ, āā ʒi;
Syr. aurant cort., q. s.
Ft. ʒiv.—M.

Sig.—A teaspoonful, diluted, three to five times in twenty-four hours.

This treatment was pursued for six months with barely any change (except an occasional intermission of the iron and cinchona) soon after which he resumed his occupation of covering base-balls, and since March, 1878, he has been making full time. A singular and significant circumstance to which I wish to point is that in this case, on several occasions, the patient begged to have the amber omitted on account of its very unpleasant taste, but each time his distress increased, and he was just as anxious to have the amber restored. Indeed, no part of his case yielded perceptibly to the other treatment when the amber was not present to command the neuralgia.

The last case which I shall note is that of Miss Mary R.

She had a jerky cough, slight expectoration, sometimes a whitish settling in her urine, much headache, was extremely weak, had frequent severe pain in her stomach, which extended upward along the gullet, and which was little affected by eating or drinking. She sometimes vomited her food, had flatulency to an annoying degree, occasional palpitation, and there was just enough whirring audible upon careful listening to denote some valvular deficiency. Her eyes and her father's were more than usually prominent, but not protuberant. Her paternal great-grandmother had exophthalmic bronchocele, but the "inheritance of descent" did not manifest itself in the two succeeding generations. She had been treated for dyspepsia for several years with no success, but her family history led me to suspect that her gastrodynia was mimetic, or reflex,—*i.e.*, that the source of trouble was in the cardiac and not in the solar plexus. At all events, when oil of

amber was given her, her pain was soon relieved.

In hysterical angina also, but more particularly in that breast-pang which is the agony of deep grief, where the whole catalogue of antispasmodics proved inadequate, I have added eight or ten more drops of oil of amber to an anti-hysteric dose, and repeated it at twenty-minute intervals, with the happiest relief to the patient.

It is my experience that there is rarely ever much progress towards health in painful affections until the pain is subdued; but as narcotics and medicines like nitrite of amyl are sometimes dangerous, and alcoholic stimulants often equally bad in cardiac affections, a remedy as safe and effective as I believe oil of amber to be should be regarded as a welcome therapeutic acquisition.

September 27, 1878.

PNEUMONIA AND CONGESTION OF THE LUNGS OCCURRING AFTER APPARENT RECOVERY FROM OPIUM-POISONING.

BY E. B. SHAPLEIGH, M.D.

IN Dr. Haynes's article on Opium-Poisoning, in the *Medical Times* for September 14, is this sentence: "From this date" (forty-three hours after ingestion of the poison) "the history of the case is one of pneumonia occurring in a consumptive. He succumbed August 18," nine days after having taken the laudanum.

This case recalls several which have come under my observation, in private practice and as coroner's physician, where congestion of the lungs and pneumonia occurred after the patients were apparently saved from opium-poisoning.

No mention is made on this point in any book on medical jurisprudence in my possession, nor have I seen any reports of such cases: therefore I conclude that these secondary complications are not very frequent. But, as I believe death may sometimes be caused by this secondary effect of toxic doses of opium, I deem it proper to call the attention of the profession to the medico-legal importance of the question, so that careful observations may be made by those who may have opportunities of watching such cases from the beginning to the end.

Hitherto the pneumonia has been attributed to exposure incident to the treatment.

I will concisely report a few cases in which I feel quite certain exposure was not a cause.

Case I.—In 1873, a female patient of the late Dr. D. C. Lloyd had been in the habit of sending to a neighboring drug-store for large doses of powdered rhubarb. One day a careless clerk dispensed a like quantity of powdered opium, which the poor woman swallowed at one dose. The mistake was soon discovered, and the doctor summoned. After constant attention for twenty-four hours, he had the satisfaction of feeling that he had saved the life of his patient. But on the third day he found the woman suffering from an alarming attack of pneumonia, which proved fatal the next day. I made the post-mortem examination, and found one lung nearly solid and the other congested.

Case II.—May 21, 1874, E. T. J., æt. 38, intemperate, took, during the day, several half-ounce doses of laudanum, as four empty phials from different stores, found in his pockets, indicated. When I first saw him, at 6 P.M., he was fully under the influence of the drug. After procuring free vomiting, I advised that he should be taken to a hospital, as he was at a house not very suitable for a man decently connected to die in. At the Pennsylvania Hospital he received prompt and skilful attention. The next day, Saturday, he seemed nearly free from opium-symptoms. On Sunday he felt quite well, and desired to leave the institution. On Monday he was attacked with congestion of the lungs, and died suddenly. The autopsy, at which I was present, disclosed excessive congestion of the lungs.

Case III.—July 21, 1877, a careful and experienced physician administered, hypodermically, about half a grain of morphia to a female patient æt. 50 years, in the evening, ignorant that she had previously taken laudanum. The next morning, when I saw her in consultation, she presented the usual symptoms of opium-poisoning. The doctor had been with her all night, and he continued his attention through the day. She rallied, and for two days seemed doing well. On the 25th, four days after my first visit, I was called again, and found her suffering from unmistakable pneumonia of left lung. After three weeks of very threatening illness, she recovered sufficiently to move to another part of the city. I believe she is still living.

Case IV.—Sept. 7, 1877, J. K., æt. 40 years, intemperate, took two ounces of laudanum. When I first saw him, it was difficult to arouse him, even partially. The treatment was successful in overcoming the opium-symptoms. Two days after, he had cough, fever, pain in the side, dulness on percussion, etc. He recovered in a short time.

By way of explanation, I will only call attention to some of the prominent symptoms observed in most cases of opium-poisoning: slow pulse, slow, interrupted, and noisy respiration, even as low as six in the minute. Death generally takes place from suspension of respiration from want of proper nerve-support from the brain.

ENTIRE DISAPPEARANCE OF A HYDROCELE UNDER THE EFFECTS OF SEA-BATHING.

BY L. K. BALDWIN, M.D.

MR. D. consulted me in the early part of May, 1878, for a commencing hydrocele of the left side of the scrotum. As the sac was only partially filled, I advised him to wear a suspensory bandage and wait until such time as tapping should become necessary. I did not see him again until the latter part of July, when he presented himself with the sac fully distended and ready to be tapped. He had at that time just obtained a summer vacation for thirty days, which he intended spending at the sea-shore, and, fearing a tapping might interfere with his pleasure, I advised him to defer the operation until his return. He was anxious to know if bathing would in any way increase his difficulty, and, being assured it would not, he took my advice, intending to have the operation done as soon as he returned in September. The next time I saw him was at Cape May, two weeks after leaving the city, and on examining the parts I found the swelling was fast disappearing, the scrotum being but half the size it was when I examined him two weeks before. He had discarded his suspensory, as he felt no discomfort from the weight of the remaining part of the enlargement. I examined him two weeks later, and found no trace of fluid remaining in the sac, there being no enlargement of the affected side save a little thickening of the walls of the scrotum.

The history of the case would seem to point to pressure as the only agent in causing the absorption of the accumulated fluid. Any one who has indulged in cold sea-bathing well knows how quickly the scrotum becomes contracted and corrugated, so as sometimes to make uncomfortable pressure on the testes; and with such pressure made once in twenty-four hours, as it was in this case, and continued for an hour at a time, might we not as reasonably expect absorption to take place of the fluid of a hydrocele, as in cases of other swellings and effusions where pressure is intentionally made? In addition to the pressure made by the contracted and corrugated parts, we have the hydrostatic pressure of the water in which the bather is immersed.

As I have no knowledge of any cases of like affection having been treated by pressure, I submit the above as an accidental discovery.

PHILADELPHIA 1900 WALLACE STREET.

NOTES OF HOSPITAL PRACTICE.

UNIVERSITY HOSPITAL.

CLINIC OF DR. AGNEW.

Reported by ABRAHAM MOREJON.

CYSTO-SARCOMATOUS TUMOR OF THE NECK —TYING OF THE INTERNAL JUGULAR VEIN.

THE case that I have to show you now, gentlemen, is that of a man with a large painless tumor on the left side of the neck. It has been growing for seven years, and has attained a very large size, extending from the mastoid process of the temporal bone down to the sternum. Lately, by pressing upon the laryngeal nerve, it produces fits of coughing. The tumor goes deeply under the lower jaw. My impression is, from the history of the case, that it is a form of *sarcoma*. It *may* be an encephaloid, but I do not think so. I think, by the appearance of the growth, that we are perfectly justified in removing it. After making the first incisions we must proceed very slowly, and tie every vessel that presents itself before us, and free the growth from the surrounding structures. It may be that we will have to tie the carotid artery or the internal jugular vein.

The professor proceeded to operate, making an *f*-like incision, commencing at the mastoid process of the temporal bone, down to the sterno-clavicular articulation. The external jugular vein was then tied with two ligatures and divided between them. Then the mastoid artery was tied, and with it several other vessels which required ligation, making in all twenty-four vessels tied. The carotid artery was not involved in the tumor, and therefore was not ligated.

The tumor was removed in twenty-nine minutes. It was very large and soft. The wound was left undressed for one hour after the operation. Then nine silver-wire sutures were applied, and a cloth soaked in carbolized oil was laid over the wound; over this a bandage and two compresses.

The internal jugular vein was involved in the tumor, and had therefore to be tied and cut to proceed with the operation. Prof. Agnew stated that this case, as far as he could learn, is the only one in which the internal jugular vein has been tied at the base of the skull above the styloid process of the temporal bone.

June 6.—The patient, notwithstanding one-fourth of a grain of morphia, has been very restless through the night, but is quite comfortable this morning; complains of some soreness about the neck, and has a little headache and fever. His temperature, taken about 8 A.M., was 101°; his pulse 90 during the evening and 104 this morning. The dressing which was applied yesterday has not yet been disturbed. Some capillary oozing occurred some hours after the operation, but it soon ceased. Neutral mixture has been prescribed.

June 7.—Patient's temperature rose to 101⅕° and his pulse to 106 last evening, but he slept well. This morning the temperature has come down to 100° and his pulse to 96: he feels in every respect better than yesterday. Two doses of one-quarter grain each of sulphate of morphia were administered yesterday. He still continues to take a tablespoonful of neutral mixture every third hour.

June 8.—Patient doing well. Temperature last evening rose to 101°, his pulse to 110. This morning his temperature is 101⅕° and his pulse 96. He complains of no pain; the wound is not much swollen, and is doing very well. The dressing was renewed last evening.

June 11.—Patient has done very well so far, using only morphia and neutral mixture. From this time recovery went on rapidly. By June 12 all the stitches and all the ligatures but one had been removed, and by the 19th the wound was so far healed that he left the hospital. After his return home he rapidly passed on to entire recovery.

[July 1.—The patient came to see me at my house. The wound is perfectly healed, and he feels well in every respect.

August 10.—Patient called on me this afternoon. He says he is enjoying good health.]

PROFESSOR ASA GRAY'S election to a corresponding membership of the French Academy was by a large majority,—thirty-two votes out of forty. Mr. Charles Darwin, the other candidate, polled only five votes.

TRANSLATIONS.

ANATOMICAL DIAGNOSIS BETWEEN ACUTE TUBERCULOSIS AND TYPHOID FEVER.—M. Laveran, at a recent meeting of the Société Méd. des Hôpitaux, endeavored to elucidate the question as to whether a certain patient had died of one or the other of the above-named affections. The point was with reference to the character of the ulceration in the intestine. M. Laveran includes intestinal ulcers under four heads: 1, disseminated tubercular granulations; 2, transverse annular ulcerations; 3, ulceration in Peyer's patches; 4, diffuse tuberculosis of the large intestine. The annular ulcers are the most characteristic: to explain the mechanism of their formation it is admitted that the tubercles are developed along the line of the vessels which reach the intestine in a longitudinal direction, especially in the neighborhood of the ilio-cæcal valve. If these annular ulcers were always found in this neighborhood there could be no doubt regarding the nature of the disease; but sometimes the ulcers found do not differ from those of typhoid fever. On closer examination, however, certain differences can be discovered. The tuberculous ulcers are indeed seated in the patches, but do not entirely occupy them. There are a number of small isolated granulations, and sometimes a little lymphangitis. There is no typhoid matter in the neighborhood of the patches. M. Laveran concludes that there is a particular form of intestinal tuberculosis having ulcerations analogous to those of typhoid fever and which it is impossible to distinguish from these. X.

THE INFLUENCE OF SALICYLATE OF SODIUM IN THE TREATMENT OF DIABETES.—Dr. Müller, of Kiel (*Bull. Gén. de Thérap.*, 1878, vii. p. 142), concludes from his experience that salicylate of sodium causes the temporary disappearance of sugar from the urine, the improvement being more rapid under large doses, where these are tolerated by the patient. The average dose at first is nine to ten grammes daily (one hundred and forty to one hundred and fifty grains), but, as the effect of the salicylate diminishes rapidly, the dose must be increased to fourteen or sixteen grammes daily, in order to hope for continued improvement on the part of the patient. Salicylate of sodium can be administered in large doses and for a long time without danger. Should toxic

symptoms show themselves, these will rapidly disappear on the cessation of the medicine. x.

ERYSIPELAS AND MENSTRUATION.—Grellety (*Cbl. f. Chir.*, 1878, No. 34; from *Rev. de Thérap.*) gives the case of a young married woman who was accustomed regularly, on the occurrence of the menstrual period, to suffer an attack of erysipelas of the face. When the flow appeared (it usually required artificial means to bring it about), the erysipelatous rash disappeared. In another case a woman of 47 was attacked by erysipelas of the face in the course of some other affection, which also disappeared so soon as the menses appeared. The author proposes to call this "catamenial erysipelas." Dal-Piaz describes a similar case in which a girl of 16 was the patient. She suffered a long time with erysipelas which disappeared during the menstrual period. x.

FATAL ATTACK OF MUMPS.—Rose (*Cbl. f Chir.*, 1878, No. 34; from *Corresp. f. Schweiz. Aerzte*) saw a man of 20, who had double parotitis, following which an abscess filled with foul gas appeared in the left cheek. Perforation into the throat ensued, with emphysema. The patient died on the ninth day with dyspnœa without stenosis of the larynx. Post-mortem section showed pus infiltrated from the wound under the skin of the neck to the heart. The glands were changed to a stinking mass. There was a centre of gangrene in the lung as large as an apple. x.

CASE OF FEBRIS INTERMITTENS URTICATA.—Dr. Jacob Weiss communicates the following case to the *Wien. Med. Presse*, No. 32, 1878. A man of 21, exposed to malarial influence, was seized on June 30 with loss of strength, headache, and dizziness. On July 2 he had the first febrile paroxysm, in the hot stage of which he observed an eruption covering his body, accompanied by great burning. This was found on medical examination to be urticaria. None of the usual causes of this affection were present. On the following day the patient felt quite well, and the urticaria had entirely disappeared. The day after this another paroxysm of fever cam eon without a chill, and with it another outbreak of the eruption. This was repeated several days, when finally the patient was admitted into the hospital. Examination here showed a marked and severe eruption of wheals of undoubted urticaria. The patient's spleen was markedly enlarged. Under the use of quinine the intermittent fever quickly subsided, and with it the urticaria *pari passu*. The patient was discharged cured on July 15. x.

NASO-PHARYNGEAL POLYPI. — Dr. Samondès, in his thesis on this subject, says that naso-pharyngeal fibromata are most common during youth, occurring with maximum frequency between the ages of twelve and eighteen, and being rarely observed after thirty. The more nearly the patient approaches the adult limit, the more favorable is the prognosis, the less likely the return of the tumor. The practical indications for treatment are, according to Dr. S., as follows. 1. If the patient, yet adolescent, is in no immediate danger, postpone the operation as long as possible. 2. Attempt first the simpler and more direct methods, tearing, ligature, cauterization, écrasure. 3. If extirpation has been decided upon, operate so as to get a good view of the pedicle, and remember that, no matter how badly placed the tumor may be, total extirpation of the superior maxilla is never necessary. According to this, two ways of operation are alone permissible,—through the anterior nares or through the hard palate; and these prevent immediate danger, and allow frequent inspection until the period during which relapses are possible is past. x.

EXTRACTION OF COLORING-MATTERS.—Dr. Méhu (*Bull. Gén. de Thérap.*, vol. xcv., 1878, No. 2) recently read a paper before the Académie de Médecine on the extraction of coloring-matters of animal origin. The method applies both to coloring-matters and albuminoids. It consists in saturating with sulphate of ammonia the liquid previously acidulated with sulphuric acid, and then throwing the mixture on a filter. The pigmentary and albuminous substances are precipitated and remain on the filter. x.

TREATMENT OF EPILEPTIFORM FACIAL NEURALGIA BY AMMONIO-SULPHATE OF COPPER.—Féréol (*Bull. Gén. de Thérap.*, vii., 1878, p. 141) had a case of tic douloureux of epileptic origin, the crises almost uninterrupted, and accompanied by vomiting. All the usual means of treatment having failed, F. prescribed ammonio-sulphate of copper in solution with syrup; first in the dose of 5 grm. (80 gr.) daily, afterwards 10 grm. per diem. The patient recovered within a week. x.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, OCTOBER 26, 1878.

EDITORIAL.

STATE MEDICINE.

WE are in receipt of a circular letter from the Surgeon-General, which we endorse most heartily. The subject of it is the using of the next United States Census as a means of obtaining information concerning the average health of the people of the country, and several allied topics. For a district as large as the United States, not only one year but also one day averages fairly with another, and, taking advantage of this, it is proposed to insert queries in the census returns as follows:

1st. Number of days during past year in which the person was unable to follow his or her usual occupation on account of Disease (D) or Injuries (I). (Attendance at school considered as an occupation.)

2d. Is the person sick on the 30th day of June? if so, name disease or injury.

3d. Is the case being treated in Hospital (H), by a physician from a Dispensary or Public Charity (C), by a private Physician (P) or without a Physician (N)?

4th. Has the person during the past year had any of the following diseases? viz., Small-Pox or Varioloid (S P or V), Scarlet Fever (Sc), Measles (Me), Diphtheria (D), Typhoid Fever (T F), Malarial Fever (M F) (includes Ague, Bilious Fever, and Remittent Fever), Yellow Fever (Y F), Acute Lung Diseases (L D) (includes Lung Fever, Pneumonia, and Pleurisy), Acute Rheumatism (A R), Cerebro-Spinal Meningitis (C S M).

5th. What has been the cost to the person (or head of the family on his account) during the past year from sickness, in—

a. Loss of wages or salary?

b. Cost of medical attendance, medicines, and nursing?

The drift and value of these queries require no comment for professional readers. We need, therefore, only to urge upon the profession such activity as will lead individual doctors to influence individual Congressmen.

Another movement, of similar but of wider and more permanent scope than that just spoken of, is represented by a memorial sent to us for signatures by Dr. Busey, of Washington.

This prays for the formation of "The United States Health Board," whose duties are to be twofold. Those of first rank are strictly sanitary, such as the aiding of the Superintendent of the approaching census in the collection of sanitary and vital statistics, and the acting as an advisory sanitary board to the several departments of the general government, the Executives of the various States, and the commissioners of the District of Columbia.

The second class of duties concerns the general profession very closely. It is proposed that the board examine all who may present themselves for certificates, attesting their fitness to act as health officers or to assume the duties of practitioners. It is not intended that the board shall possess any compulsory powers, or that they shall in any direct way interfere with the practice of any one either as sanitarian or physician.

The value of such certificate to an applicant for the position of health officer is, however, so obvious that it is entirely probable that the majority of young physicians who shall intend to devote themselves to sanitary science will appear before the board. Again, a stranger settling in any district of country can offer no better proof of his professional education and skill than a certificate from a national board of examiners, free from bias of personal friendships and interest or of professional attachments and rivalries. It is possible that little by little the influence of such a board would grow until it should be supreme,—which

would be a great gain. A yearly report showing that ninety per cent. of the graduates of a certain college failed before the board would have great moral weight. On the whole, the experiment is worth far more than the thirty thousand dollars necessary to give it life, and we trust Congressmen will show some appreciation of the highest interests of their constituents.

PROCEEDINGS OF SOCIETIES.

THE AMERICAN GYNÆCOLOGICAL SOCIETY.

(Continued from page 22.)

SECOND DAY.

DR. WILSON, of Baltimore, read a paper on the "*Use of the Hand as a Curette in Post-Partum Hemorrhage*," illustrated by a case where the uterus obstinately refused to contract under the usual remedies, but the scraping of its inner surface with the fingernails brought on firm and permanent contraction.

In the discussion, it was stated that the introduction of the hand into the uterus must be looked upon as a dangerous expedient, although sometimes necessary. Lacerations of the cervix may be thus produced, and Dr. Barker reported a fatal case of this accident, which causes post-partum hemorrhage and favors septic absorption.

Dr. R. A. F. Penrose read a paper "*On the Treatment of Post-Partum Hemorrhage*," which condition he had always found to yield to intra-uterine applications of common *vinegar*, which he recommended as being convenient, safe, efficient, cleanly, and antiseptic.

The use of the *per-salts of iron* was generally condemned in the discussion, as dirty and dangerous, favoring septicæmia, and sometimes causing death. Dr. Thomas believed that in a great majority of the cases uterine inertia is due to neglect on the part of the attendant. If the uterus is empty it will contract. Clots must be removed and firm contraction of the uterus secured before the physician leaves his patient, if it requires twelve hours or more to accomplish this result. Until this is done the patient is in great danger. Injections of hot water or dilute alcohol are sometimes required, and were considered as efficient as the more dangerous iron solution. No practical obstetrician should rely exclusively upon one remedy for the treatment of post-partum hemorrhage. Dr. White was pleased with the recommendation of Dr. Penrose, and intended to resort to it in the future. Dr. Barker pointed out the fact that post-partum hemorrhage, when occurring in connection with the hemorrhagic diathesis, is especially intractable, and favored in obstinate cases the introduction of the hand and conjoined manipulation.

Dr. Wm. Goodell delivered the president's annual address, taking for his subject the "*Relation of Neurasthenia to the Diseases of the Womb*." After a few introductory remarks, in which the deaths of Dr. Edmund R. Peaslee and Washington L. Atlee were referred to in appropriate and feeling terms, the special topic of the connection between nerve-tire and womb-ills was considered in a masterly manner. He declared that "mental overstrain, nerve-tire, or neurasthenia is so common a disorder in our overtaught, over-sensitive women, that in its successful treatment every physician has an abiding interest. It manifests itself by hysteria, by spinal irritation, and by a crowd of reflex symptoms, among which those of a uterine complexion often overshadow and indeed outlast all the others.

"The general pathology of such a neurosis is not clear, but it probably consists essentially in malnutrition of nerve-centres, followed by disturbances in the circulation from weak innervation. The secondary disturbances consist of local anæmias and local hyperæmias. . . . The anæmia of the reproductive organs is exhibited by amenorrhœa, or by scant menstruation, by neuralgic and hysterical pains; the hyperæmia, by congestion, by dysmenorrhœa, menorrhagia and leucorrhœa, by uterine flexions and dislocations, and by a variety of subjective and objective phenomena with which every physician is familiar."

Many disorders of the reproductive apparatus were declared to be merely the local expressions of the general neurosis, and call for general treatment. Hygienic measures are especially indicated, particularly that plan of treatment devised and first put into practice by Dr. S. Weir Mitchell, the results of which, with electricity, massage, and rest, with seclusion and good feeding, had far exceeded his expectations. Accompanying the address were the notes of a number of cases which had obstinately resisted local treatment but which by the adoption of this plan were subsequently restored to health. A detailed account of the regimen recommended concludes this most valuable contribution.

Dr. Byford's paper on "*Dermoid Tumors of the Ovaries*" discussed the pathology of these growths, which the author believed to be of no more frequent occurrence than in other portions of the body where their development is attended with less marked symptoms. Dr. Noeggerath, in discussing the paper, described Waldeyer's theory of involution to account for the formation of these tumors. They occur in the fœtus, the virgin, the matron, or the male, and may exist in any part of the organism.

"*A Contribution to the Study of the Treat-*

ment of the Acute Parenchymatous Nephritis of Pregnancy" was the title of a paper by Dr. W. L. Richardson, of Boston, which had much practical value in regard to determining the proper period for the induction of premature labor in such cases. The albuminuria must be carefully observed and treated, but the diminution of the quantity of the daily amount of urine secreted was declared to give the signal of danger. This seems to explain why some cases of albuminuria terminate in eclampsia, and others do not. In the latter class the secretion has been maintained at an amount consistent with a satisfactory performance of the function of the kidneys. The daily quantity of such urine should be recorded, and when it falls decidedly below the average, and resists medical efforts to increase it, the patient is in danger, and labor should be brought on. This rule applies with greater force when the fœtus is viable.

Drs. Barker, Thomas, and Lyman endorsed the views of the writer. Dr. Atlee urged phlebotomy for the relief of the actual convulsions, by which he had saved many cases. He has yet to lose his first case of puerperal eclampsia.

THIRD DAY.

Dr. S. C. Busey, of Washington, read a report of a case of "*Alternating Anterior and Posterior Versions of the Uterus*," occasioned by lateral adhesions and acting under the influence of opposite conditions of rectal or vesical distention or collapse.

Dr. Garrigues contributed a most interesting paper upon *Gastro-Elytrotomy*, in which the history of the operation was reviewed, and its results compared with Cæsarean section. The chairman called upon Dr. Thomas for remarks upon the paper, who stated that in the beginning he had not been aware of the operations previously reported by Ritgen and Baudelocque, or he would not have had the courage to perform it. He detailed the steps of the operation and the expedients adopted to prevent hemorrhage and septic poisoning. This operation is offered as a choice where Cæsarean section is under consideration. The cases are too few to generalize upon; but out of five cases operated upon, three mothers were saved in the city of New York, whereas there had been only one successful case of gastro-hysterotomy out of all the many operations performed there during the last two hundred and fifty years.

Dr. Byford expressed his favorable opinion of the operation, and promised to give it a trial.

Dr. Bozeman believed that there was a serious objection from a surgical point of view. He thought that in this operation the ureter is ruptured, which would generally be a fatal complication.

This was denied by Dr. Thomas, who said that the ureter need not be encountered or injured, as had been proven by dissection upon the cadaver.

An elaborate paper was read by Dr. A. H. Smith, opposing the use of the forceps as levers by the pendulum movement of the handles.

The value of the forceps as tractors was acknowledged by those who engaged in the discussion; but it was believed that where the head is tightly gripped slight lateral movement might be serviceable, but it must be made simultaneously with direct traction.

"*Rectal Alimentation in the Nausea and Inanition of Pregnancy*" was strongly commended in a paper presented by Dr. Campbell, of Georgia, who reported a case where for fifty-two days no other mode of alimentation was pursued. He had demonstrated to his own satisfaction the fact that the injections traverse the large intestine and pass into the ileum.

The hour for adjournment having arrived, Dr. Goodell delivered the farewell address.

A vote of thanks to the president, and one to the secretary, were unanimously passed.

The following are the officers for 1879:

President, T. Gaillard Thomas, M.D., of New York.

Vice-Presidents, D. H. Storer, M.D., of Boston, H. P. C. Wilson, M.D., of Baltimore.

Council, T. A. Emmett, M.D., of New York; Albert H. Smith, M.D., of Philadelphia; John Byrn, M.D., of Brooklyn; George J. Engelmann, M.D., of St. Louis.

Secretary, J. R. Chadwick, M.D., of Boston.

Treasurer, P. F. Mundé, M.D., of New York.

The following members were elected:

Honorary Fellows, J. S. Billings, M.D., U.S.A., Washington; J. Matthews Duncan, M.D., of London.

Fellow, Nathan Bozeman, M.D., of New York.

The Society adjourned to meet at Baltimore on the third Wednesday in September, 1879.

REVIEWS AND BOOK NOTICES.

ANTAGONISM OF ALCOHOL AND DIPHTHERIA. By E. N. CHAPMAN, A.M., M.D., formerly Professor of Materia Medica and Therapeutics and Clinical Midwifery, etc. Brooklyn Evening Argus Steam Print Establishment, 1878.

On the title-page we read, "Alcohol is as antagonistic to diphtheria, as belladonna to opium or quinia to malaria." These are such brave words as to excite instant suspicion. Dr. Chapman finds that alcohol in his hands "has proved an antidote capable of saving 95 per cent. in severe epidemics." While we do not deny that alcohol may be

of great benefit, we would suggest that the word "antidote" is a strong one; that Dr. Chapman has not proved that in any one of his cases it was the means of cure; that it has been long known and extensively used, as he uses it, without such remarkable success, forming, in fact, one of the main reliances in this as in other low forms of disease; and that the very fact he adduces to support his case—viz., the diminished mortality returns of the last year—utterly fails to prove anything except his total inability to contend even with the simplest statistics successfully.

With equal truth might two gentlemen of Pennsylvania point to a diminished mortality—or a diminished number of cases. which the tables also show—as proof of the success of their respective methods of treatment,—the persulphate of iron and the frequent and large doses of calomel.

Let us see first from Dr. Chapman's cases what his so-called alcoholic treatment is. (P. 1.) He calls it "a plan of medication which has, after a trial of more than fifteen years, been crowned with a success that throws every other, however pretentious, into the shade." It is a modest plan, anyway. Is there anything unusual in the method of administration or in the quantity given? Let his own cases inform us. He claims his success from early and large doses. Now, we cannot use it before the case comes to us; and in a large majority of cases—prevalent, as all diseases are, mostly among the poor and careless—diphtheria is insidious and unsuspected till fully developed. Many recent text-books mention swelling of the glands at the angle of the jaw as an early symptom,—whereas it really occurs on the third day; or a chill is spoken of, but search in the fauces would have discovered the exudation twelve hours before. So that at best but a limited number of cases could have been treated with *early* heroic doses of alcohol. And when developed in all its symptoms, the diagnosis made, and the means of supporting life looked for, it seems to us that the use of alcohol is now almost traditional. It may be that as late as 1860—yes, 1876, according to Dr. Chapman—the average New York practitioner had not yet learned that alcohol was useful and could be safely given when the skin was hot and dry and the pulse rapid, as in typhoid and typhus; but we had not supposed our near neighbors to be so far behind the age.

But as to the actual amount given by Dr. Chapman: on page 30, a child aged six years took ʒi every hour, afterwards ʒii every hour, and died; the parents and other children in the family took from 4 to 24 drachms per day. (Page 37,) a child seventeen months old took ♏xx every one and a half hours; (page 39,) a three-year-old child took ʒii every two hours; one one year old, gtt. x at a dose; and, not to take up more space, we find by going over all his cases that at nine years ʒiv every hour have been given: an adult with malignant diphtheria took "full doses," ʒss every hour, or twelve ounces a day. We leave the reader to decide whether the quantity given is anything unusual. And in all these cases quinine, iron, milk, lime-water, and sulphuric acid have been used, apparently unnecessarily, since they obtain none of the credit for Dr. Chapman's *cures*.

But the author is convinced that the reduction of 40 per cent. in the mortality of the last year (or, as he says, "after the use of alcohol") was due to the spread of his views of treatment,—a narrow view, when one considers how successful the iron treatment, the almost any treatment, was on the outbreak of 1873 in this city, and how there are to be found everywhere men of large experience ready to swear to the efficacy of chlorate of potassium, sulphuric acid, subsulphate of iron, hyposulphites, and many other remedies. The matter is too serious to be trifled with, and needs careful and painstaking investigation before appearing in print in advocacy of a *new*—which is a very old—method.

Alcohol, in the author's opinion, is also prophylactic. Now, this is a new idea,—though of course in a crude way many people have been for ages past warding off contagion by alcohol, sometimes to an excessive extent. And it is a remarkable fact, corroborating Dr. Chapman, that these people generally die of dropsy or mania a potu, diseases not at all contagious, not at all allied to diphtheria; but the merit of the idea is no less truly the author's. The condition of the blood in drunkards, he tells us, is exactly the opposite of that obtaining in diphtheria. This is truly a comfortable thought for the total abstainers: by abstaining they run a frightful risk of contracting a malignant and fatal disease. So we see, or Dr. Chapman sees, a strange Survival of the Unfittest,—the drunken mother who nurses her sick child running but little risk, while the sober and temperate and respectable parent, and physician too, speedily succumbs. Can we not in this way account for the relative increase of inebriates? and what, we ask, will become of free institutions when all the teetotallers have been carried off by *diphtheria?* E. W. W.

CONTRIBUTIONS TO THE PHYSIOLOGY AND PATHOLOGY OF THE BREAST AND ITS LYMPHATIC GLANDS. By CHARLES CREIGHTON, M.B., Demonstrator of Anatomy in the University of Cambridge. 8vo, pp. 200. With Illustrations. Macmillan & Co., London, 1878.

The investigations described in this volume were undertaken for the Medical Department of the Privy Council of Great Britain, by way of inquiring into the causation of malignant tumors, and reprinted, with additions and corrections, from the Reports of 1875 and 1876, except the chapters on development, which

were originally published in the *Journal of Anatomy and Physiology*.

The first part—*Physiological*—includes a chapter on the periodical involution of the breast, a second on its periodical evolution, a third on the lymphatic glands of the breast in connection with the disposal of its cellular waste, a fourth on the development of the breast, and a fifth on the development of the mammary function.

Part II.—*Pathological*—includes two chapters on pathological processes of the breast, and a third on tumor-infection of lymphatic glands.

The term "involution" is used by the author, after Langer, to indicate the "upfolding," or process by which the gland passes from a state of activity to rest; the term "periodical involution" being applied to the involution which succeeds each period of lactation, as distinguished from the final atrophy or disappearance of the secreting structure that occurs in women at the climacteric years. In like manner, the term "evolution" is applied to the opposite, or unfolding process, by which the gland after each period of functional rest is step by step rehabilitated with its full structure, in readiness for the next period of suckling. These inverse processes are exhaustively described as studied in the lower mammals, especially the cat, bitch, sheep, and guinea-pig. They may both be divided into tolerably definite stages, which correspond exactly in an inverted order, and are characterized by secretory products of epithelium peculiar to them. When the functional stimulus of the mamma is acting at its lowest point, the secretory product is a large granular pigmented cell. At the next appreciable advance in the intensity of the stimulus, the product formed in the gland may be described somewhat generally as a large nuclear cell. Beyond the medium degree of intensity, the product is both fluid and cellular, the former being mucus, and the latter, generally speaking, a small round cell. Coming still nearer to the full excitation, the cellular ingredients are fewer and the mucous productions much more abundant. Finally, when the stimulus is at its height, the mucus-fluid has given way to a fatty fluid, and whatever cellular elements the secretion contains are the well-known colostrum-cells. The various cellular and fluid products of the imperfect secretion are spoken of as waste products, the elaborate mechanism for the utilization and disposal of which are the lymphatic glands beneath the mammæ. One of the objects of the third chapter is to prove this. The law of secretion, at all times implicitly present, is taken by the author to be the law of *endogenous cell formation*, in which one or more cells are formed within the body of the parent cell.

In Part II. the pathological aspect of the question is studied, and we are first informed that "the grand disease of the breast is the tumor-disease." This was studied by the author chiefly in the bitch, the tumors in which, though differing in some respects from the ordinary mammary tumors of the woman, had as a class the property of malignity equally well marked. These tumors he refers mainly to irregularities of the glandular function, and histologically of epithelial origin rather than of connective-tissue origin.

With regard to tumor-infection of lymphatic glands, considered in the last chapter of the book, the one generalization of the author from the collection of cases he has examined is that the secondary tumors of the lymphatic glands and other organs correspond in structure to the primary, even in the most minute particulars; whence he infers that the infectiveness of primary tumors is a property they develop of themselves, an "autonomy" or "individuality."

The simplest mode of infection is described as that in which a considerable number of cells are conveyed from the primarily diseased part to the lymphatic gland, where they themselves undergo a transformation to tumor cells, and at the same time induce by contact, or by some other unknown influence, a similar transformation in the *proper* cells of the part. Next in complexity and obscurity is where a few cells overflow into the lymphatic parenchyma and determine the transformation of *all* the cells of the part within a certain radius. And although in this extreme form of infection no transport of entire cells can be traced, we do not seek for any explanation of this infection outside of the properties of the cell, that is, in the fluids in or about the cells (Virchow), or in the "serum or intercellular substance" (Billroth). The infection implies also not only the transformation of the cells of an infected area into the likeness of the cells of the primary tumor, but likewise a co-operation among the elements of the infected parts to *assume the grouping and general plan of the primary tumor*.

The treatise is a creditable one to its author. Based as it is largely on the study of actual preparations whence the reasoning is physiological and legitimate, its results should not be discarded without close examination, although they may not agree with those arrived at by better-known pathologists. It is, moreover, a valuable contribution to the histology and physiology as well as pathology of the gland, and should be in the library of every pathologist and surgeon. J. T.

A Treatise on the Science and Practice of Midwifery. By W. S. Playfair, M.D. With Notes and Additions by Robert P. Harris, M.D. Second American from the Second London Edition.

The elaborate review of Dr. Playfair's treatise which was published in the number of this journal for November 11, 1876, ended

with the assertion, "The manual is, however, excellent throughout." No wonder, then, a new edition of the work comes so soon into the editorial sanctum. The most important addition of Dr. Harris, as would naturally be expected, is upon the subject of Cæsarean section; but even here he has evidently been profoundly under the influence of the old maxim, "Brevity is the soul of wit." It would have improved his otherwise good English if in these additions he had said not We, but I, when he meant I. Such literary prudery is always distasteful, but is especially so when it obscures the text. Dr. Harris is speaking of his own researches, but the "we" certainly leads to the natural inference that both author and editor of the book were concerned in the matter.

STUDIES IN PATHOLOGICAL ANATOMY. By FRANCIS DELAFIELD, M.D., Adjunct Professor of Pathology and Practical Medicine in the College of Physicians and Surgeons, New York. Quarto. In monthly parts. New York, William Wood & Co. Parts 1, 2, 3, and 4,—January, February, March, and April.

Except the Atlas of Dr. Duhring, we are not aware of any original work publishing in this country of the character of that before us by Dr. Delafield. It is really an atlas of pathological histology, with descriptive text, intended to include more particularly inflammations of connective tissue, of the mucous membranes, and of the viscera, and the structure of tumors. Each monthly part consists of from two to five full-page drawings and the accompanying text, the drawings being made by Dr. Delafield himself, from actual specimens, with the aid of the camera lucida.

Part 1 includes *connective tissues*, three plates:

1. Flat connective-tissue cells from the fascia of a dog's leg; magnified 750 diameters.

2. Branching connective-tissue cells from the tendons of a dog's leg; magnified 1500 diameters.

3. Branching connective-tissue cells from the omentum of the rabbit; magnified 750 diameters.

Part 2 contains *the pleura*, five plates:

1. Pleura of dog. 2. Endothelium and branching connective-tissue cells from pleura of dog. 3. Endothelium of human pleura. 4. Lymphatics of the parietal pleura of the dog. 5. Lymphatic spaces and connective-tissue cells from the pleura of the dog.

Part 3 contains *the inflammations of the pleura*, four plates:

1. Pleurisy of the dog, 24 hours, new cells.

2. Pleurisy of the dog, 3d day, layer of cells and fibrin.

3. Pleurisy of the dog, 5th day, layer of cells, new tissue.

4. Pleurisy of the dog, 7–9 days, new endothelial and connective-tissue cells.

Part 4 contains *empyema*, three plates:

1. Empyema in a dog, produced by a seton of 24 hours' duration; magnified 750 diameters.

2. Empyema of ten days' duration in a dog, vertical section; magnified 750 diameters.

3. Vertical section of the human pleura, empyema; magnified 750 diameters.

The drawings are carefully and accurately made, and printed in tint from lithographic plates. It is an encouraging index of the times to perceive that we have reached a stage of medical culture in this country which appreciates work of this kind. The profession, and particularly teachers of pathological anatomy and histology, are greatly indebted to Dr. Delafield for his laborious efforts in the direction of these studies. We sincerely hope he will be sustained by a prompt sale of the edition.

A PRACTICAL TREATISE ON THE MEDICAL AND SURGICAL USES OF ELECTRICITY. By GEO. M. BEARD, M.D., and A. A. ROCKWELL, M.D.

There is something curious, if not new under the sun. On picking up the volume received from the publishers a few weeks since, its features seemed in all respects familiar; and comparison with the older volume in our library at home has failed to reveal any difference, save only that the present treatise bears on its title-page the date of 1878. Both volumes are "*Second Edition*, revised, enlarged, and mostly re-written." How this is, or why this is, we cannot tell.

CLASSEN'S ELEMENTARY QUANTITATIVE ANALYSIS. Translated by EDGAR F. SMITH. H. C. Lea, 1878.

This little book will be highly appreciated by students of analysis who have been discouraged by the voluminous works of Fresenius and Rose, and have been able to find no satisfactory hand-book for the laboratory.

The fact, mentioned in the translator's preface, that it is extensively used in the laboratories of France and Germany, is a guarantee that it will become a favorite here. The translation is clear and concise, and a few very acceptable notes and additions have been made by the translator. W. H. G.

GLEANINGS FROM EXCHANGES.

HOW TO RESTORE THE APPARENTLY DROWNED (*The Lancet*, August 10, 1878).—Dr. Howard has issued the following instructions for carrying out what he terms the "direct method" of resuscitation of the apparently drowned:

1. Instantly turn the patient downwards, with a large, firm roll of clothing under the stomach and chest.

Press with your weight two or three times, for four or five seconds each time, upon the

patient's back, so that the water is pressed out of the lungs and stomach and drains freely downwards out of the mouth. Then

2. Quickly turn the patient face upwards, the roll of clothing put under his back just below the shoulder-blades, the head hanging back as low as possible.

Place the patient's hands together above his head.

Kneel with the patient's hips between your knees.

Fix your elbows against your hips.

Now, grasping the lower part of the patient's chest, squeeze the two sides together, pressing gradually forward with all your weight, for about three seconds, until your mouth is nearly over the mouth of the patient; then, with a push, *suddenly* jerk yourself back.

Rest about three seconds, then begin again.

Repeat these bellows-blowing movements, so that air may be drawn into the lungs about eight or ten times a minute.

Remember, the above directions must be used *on the spot*, the instant the patient is taken from the water. A moment's delay, and success may be hopeless. As soon as the water is pressed from the lungs, all clothing should be ripped away from the chest and throat. In making the pressure, either for the removal of water or for breathing, increase it *gradually* and thoroughly, and *suddenly* let go with a jerk. With women and children use less force.

Do not stop these movements under an hour, unless the patient breathes. Be careful not to interrupt the first short natural breaths. If they be long apart, carefully continue between them the bellows-blowing movements as before.

After breathing is regular, keep the patient warm with blankets, rubbing with warm hands, etc.

Prevent crowding around the patient; plenty of fresh air is all-important.

Spirits and water only, in occasional small doses, may now be given: if hot, the better. After this encourage quiet and sleep.

The first of these rules is criticised in a communication to *The Medical Times and Gazette* of August 31 by a writer who signs himself "Seaside Correspondent." He says that Dr. Howard seems to upset all former scientific theories as to the reason why men are drowned, and their state when drowned; and, therefore, how they should be treated when found drowned. He continues: "In olden time, before science dawned, the populace hung up a drowning man by the heels, let the water run off, and then they rolled him on casks. Science stepped in and forbade that the patient should be turned upside down. The new theory was that water never entered the windpipe, and that recovery could only be hoped for from attempts to restore breathing by artificial respiration. In Dr. Druitt's 'Vade-Mecum,' for instance, I am told to let the drowned man's head hang down for two seconds, to enable any water to run out of the mouth. Even this concession to public opinion is not always found, for I see in 'Swain's Surgical Emergencies' that I am to remove from the mouth all dirt, saliva, etc., but nothing is said about water in the air-passages at all. Now comes Dr. Howard, and, if he be right, then the original *vox populi* was right, and patients should once more be hung up by the heels, and the body should be drained before artificial respiration was attempted. Common sense and science would work together, and excursionists and doctors might each take a share in the recovery of the drowned. Dr. Howard says, 'Press with your weight two or three times for four or five seconds each time upon the patient's back, so that the water is pressed out of the lungs and stomach and drains freely downwards out of the mouth.' Is Dr. Howard right? Has a post-mortem examination ever shown the trachea and bronchial tubes filled with water after death by drowning? Does the mechanism which prevents the passage of fluid down the windpipe fail in a drowning man? Is the man drowned because he can get no air? If so, artificial respiration seems the first consideration. But if he be drowned because the trachea is blocked with water, hang the patient up by the heels before you attempt anything else. All I ask for is decisive instruction as to 'the first step' in the recovery of the apparently drowned. I want to know the reason why, when every one says not a moment is to be lost, and Dr. Druitt will spare only two seconds to drain the mouth, and Mr. Swain not one, Dr. Howard should allow me to spend as much as fifteen seconds in emptying the drowned man's lungs."

CASE OF LACERATION OF THE PENIS (*Southern Medical Record*, August 20, 1878).—Dr. A. A. Lyon reports the case of a boy, æt. 7, who, while playing, caught the penis between a nail and a link of a chain, and almost entirely denuded it of skin. The prepuce, which, as usual in children of that age, was redundant, was unhurt. An incision was made through its dorsum from the margin down to the corona, and a corresponding one inferiorly just alongside of the frænum. It was then carried back and attached by silk sutures to the sound skin remaining at the root of the penis. The result, as seen some time afterwards, was perfect. There was no deformity: the penis was completely enveloped, excepting, of course, the glans, and the cicatrix was hardly discoverable. The operation therefore seemed far preferable to either of the plans which might have been suggested at the time of the accident, *i.e.*, of endeavoring to replace and coaptate the true skin, or, after removing the fragments, to trust to superficial granulation without further operation.

CASE OF LIGHTNING-STROKE (*The Lancet*, August 17, 1878).—Mr. George Waugh reports the case of a man who during a thunder-storm had been struck by lightning, and whose history and condition were as follows. He had been attending some sheep in the fields, and when the storm was at its height had taken refuge from it under an elm-tree. Very soon after he felt something strike him behind the left shoulder, seemed to lose the use of his legs, and fell to the ground. On arriving at his house, Mr. Waugh found him sensible, but rather excited in manner, and complaining principally of numbness in his legs, and a sense of soreness over his shoulders and back generally. He was able to stand, though he had taken himself to bed. On stripping him, a very curious condition of affairs on his back was found. From the spine of the left scapula (where he felt the blow that knocked him down) extending downwards and outwards, and crossing the vertebræ about the middle of the dorsal region, extending over the right buttock, was a central stem, from which proceeded various branches, as of a tree. These consisted of a raised, œdematous condition of the skin, of a bright scarlet color, not quite disappearing on firm pressure, the central stem being about the breadth of three-quarters of an inch, and the various branches gradually thinning off to something like the scratch of a pin at their terminals. The general appearance was that of a fern, with the exception that, instead of being one frond, as in the male fern, there were about from six to eight given off from the central twig. Besides this, there was a distinct impression over each iliac region of, as it were, a single frond, each complete in itself. The whole was most beautiful and regular, just as if one had made the impression of some plant on the man's back. The man also happened to wear outside his trousers two small belts, with iron buckles, and on the corresponding parts of his legs were two distinct reddened circles, with the addition on the right leg, over where the buckle had been, of a small laceration of the flesh, which had bled rather profusely for its size.

There was nothing in the man's clothing to account for the erratic impression left by the electric fluid. In about three days afterwards the whole affair had nearly disappeared. The terminal branches faded first, but on the third day part of the central stem, and especially towards the left scapula, was still raised, and of a bright-red color. Altogether it seemed more like a burnt surface in appearance than anything else, only the skin was nowhere broken.

THE TREATMENT OF ACNE BY SULPHIDE OF CALCIUM (*The Lancet*, August 17, 1878).—Mr. Howard Carre details two cases out of a series of sixteen in which he has used sulphide of calcium with great success in obstinate cases of acne which had resisted other methods of treatment. He uses it in doses of from $\frac{1}{10}$ to $\frac{1}{4}$ grain four to six times daily, giving at the same time a face-powder of precipitated sulphur, and paying the strictest attention to the diet. He gave it in the form of powder mixed with a few grains of loaf sugar, with directions that it be kept in a tightly-stoppered bottle. He cautions the patient not to wear metallic ornaments during treatment, as the sulphuretted hydrogen given off from the lungs and skin forms with the metals a sulphide which greatly tarnishes them.

CURIOUS METHOD OF TREATING HYDROPHOBIA IN MEXICO (*The Lancet*, August 24).—The following is communicated by the daughter of a medical man. The lady is eighty-three years of age. The directions were given to her father:

"The person under the influence of the disease must be well secured, that he may do no mischief either to himself or others. Soak a rennet in a little more than a half-tumbler of water for about five minutes; when this has been done, add of pulverized savadilla as much as may be taken up by the thumb and three fingers. Mix it thoroughly, and give it to the patient (that is, force it down his throat in the interval between the paroxysms). The patient is then to be put into the sun if possible, or placed near the fire, and well warmed. If the first dose tranquillizes him after a short interval, no more is to be given; but if he continue furious, another dose must be administered, which will infallibly quiet him. A profound sleep will succeed, which will last twenty-four or forty-eight hours (according to the strength of the patient's constitution), at the expiration of which time he will be attacked with severe purging and vomiting, which will continue until the poison be entirely ejected. He will then be restored to his senses, will ask for food, and be perfectly cured."

MISCELLANY.

THE PITH OF THE DRIED CORN-STALK AS A UTERINE TENT.—Dr. W. T. Goldsmith, of Atlanta (*Transactions of the Medical Association of Georgia*, 1878), takes a joint of dried corn-stalk, strips it of its cuticle, and compresses the pith, slowly and firmly, with the thumb and index finger. By this pressure it is reduced four or five times less than its original size. It has a dilating power equal to sea-tangle or sponge. The corn-stalk tent is easy of introduction. Its rigidity overcomes any slight resistance. Dr. G. has used this tent for seven years. He has not had a single accident from its use, although he has introduced it many hundreds of times.

The advantages of this tent are:—It dilates effectually, but not too rapidly. It is smooth, soft, and can be removed without force. It produces no lacerations, abrasions, or irrita-

tion of the mucous membrane. It can be medicated with any substance as easily as the sponge or cloth tent. It is of vegetable origin, and hence does not become putrid and poisonous to the patients. It may be retained, non-compressed, for days, without injurious results, if no pain occurs. A number of small tents, filling up the cervical canal, may be used for more rapid expansion. It can be prepared in a few minutes of any desired curve, size, and length. Any degree of compression may be given it, or it may be used without compression. It may be perforated, like the sea-tangle, and its power of absorption increased, by pricking its surface.—*Ohio Medical Record.*

To Conceal the Taste of Quinia.—Dr. S. Ashhurst says that if cinchona be mixed in the proportion of one grain of the alkaloid to four grains of sugar of milk, and one-tenth of a grain of bicarbonate of sodium, it will leave no bitter taste in the mouth. The mixture may be taken dry or dissolved in water.—*Druggists' Circular.*

Nerve-Stretching in Leprosy.—Dr. Edward Lawrie has stretched the ulnar nerve in thirty cases of anæsthetic leprosy. In every instance the operation was followed by benefit, so far as the area supplied by the nerve was concerned.—*Indian Medical Gazette*, September, 1878.

The Chinese giant for a while was supreme in the French Exhibition, but at last a Frenchman, native of the department of Aisne, has been found to outreach him. He is seven feet two and a half inches high; and the Celestial retires heart-broken in his Oriental insignificance.

Dr. J. C. Ross reports (*Cincinnati Lancet and Clinic*, October 5) a case of traumatic tetanus successfully treated with chloral.

The death of Mr. John R. Hilton, F.R.S., is announced. His best-known work is that on "Rest and Pain," but he has also published "Lectures on the Cranium," "Clinical Lectures on Surgery," "On Puncturing the Bladder per Rectum for Relief of Retention of Urine," and several papers contributed to medical journals.

The difficulty recently experienced in procuring experienced surgeons for the British army, in consequence of the beggarly wages offered for medical skill, has at last aroused the officials to increase their inducements. The surgeon-majors, after twenty-five years' service, are to receive $2500 a year, besides allowances, and may retire on $2000. A brigade surgeon is to be created, who will get $2750 a year, or, with allowances, $3375, being able to retire after five years in the ranks on $2750 a year. The total pay of the Surgeon-General is to be $6840 a year, and he will retire on $10 a day. Every man who has not reached administrative rank must retire at 55 years of age, and the lucky ones who have won promotion retire at 60. Medical institutes are also to be established at the larger stations.

The London *Lancet* states that it is the intention of Mr. Callender, of St. Bartholomew's Hospital, to proceed to the United States early in December, with the intention of seeing the practice and teaching-arrangements of the distinguished surgeons of America.

Hiccough cured by Compression.—A case is cited from a French journal, in which hiccough which had been "incessant for fifty days" was cured in five minutes by powerful compression over the epigastrium. All other conceivable means had failed.—*Pacific Medical and Surgical Journal*, August, 1878.

NOTES AND QUERIES.

Boston, October 15, 1878.

To the Editor of the Philadelphia Medical Times:

Sir,—In answer to Dr. Brooks's questions in your number of August 31 (page 576), I will send this slip from the *Boston Medical and Surgical Journal*, March 21, 1878, p. 385.

Respectfully,
JAMES B. AYER.

"The Brown-Séquard prescription for epilepsy should be written as follows:

℞ Sodii bromidi,
Potassii bromidi,
Ammonii bromidi, āā ʒiij;
Potassii iodidi,
Ammonii iodidi, āā ʒiss;
Ammoniæ sesquicarb., ʒi;
Tinct. calumbæ, fʒiss;
Aquæ destillat., ad fʒviiij.—M.

"Full dose: one and a half drachms before each meal, and three drachms at bedtime.

"Yours,
"JAMES B. AYER.

"March 8, 1878."

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM OCTOBER 6 TO OCTOBER 19, 1878.

Notson, Wm. M., Major and Surgeon.—Granted leave of absence for four months. S. O. 221, A. G. O., October 14, 1878.

Whitehead, W. E., Captain and Assistant-Surgeon.—Relieved from duty in Department of the Missouri, and to report by letter to the Surgeon-General. S. O. 218, A. G. O., October 10, 1878.

Steinmetz, Wm. R., Captain and Assistant-Surgeon.—Relieved from duty in Department of the Missouri, and, upon expiration of his present leave of absence, to report by letter to the Surgeon-General. S. O. 218, c. s., A. G. O.

Havard, V., First-Lieutenant and Assistant Surgeon.—To report in person to the Commanding General, Department of the South, for assignment to duty. S. O. 218, c. s., A. G. O.

Semig, B. G., First-Lieutenant and Assistant-Surgeon.—Relieved from duty in the Military Division of the Pacific, to proceed to New York City, and, on arrival, to report by letter to the Surgeon-General. S. O. 217, A. G. O., October 9, 1878.

Barnett, R., First-Lieutenant and Assistant-Surgeon.—Granted leave of absence for one month, with permission to apply for one month's extension. S. O. 93, Department of the Platte, October 14, 1878.

Cuningham, T. A., First-Lieutenant and Assistant-Surgeon.—Leave of absence extended one month. S. O. 81, Division of the Missouri, October 8, 1878.